Collaborative Structures

People and Extranets: The Soul of a Project

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Introduction

Thank you for inviting me to kick off your week in the nation's capital. I think D.C. still stands for the District of Columbia – but most of you here this week it probably stands for Dot. Com here in design and construction nation.

There is a lot going on in our world. What does it mean? What should individual firms do?

I have three purposes in speaking with you this afternoon. First, I'd like to stimulate your thinking with a vision of how technology plays out in our industry. Second, I'd like to give you two analytic structures to take away and use today. Third, I am passionate about the impact of technology on people – and the impact of people on technology – and I'd like to share some best practices learning around how nurture the people, the soul of a project.

Before we begin, I need to say that in spite of the strength of the economy outside this hall and the strength of salesmanship inside this hall, in some ways I'm reminded of a real estate speech I heard at the top of the last business cycle. The speaker said: look at the person to your left; look at the person to your right. Only one of the three of you will be here in five years' time.

How can I say this? Because one of you is a dot.com entrepreneur, and not all of them will survive. And because the other is an architect, contractor, or subcontractor; and there will be fewer of you, too How can this be?

Because of the confluence of four themes. I'd like to discuss those themes with you today. They are:

- Transparency of information.
- Effectiveness of the individual.
- Economic risk, and
- Personal comfort.

Today, these four themes converge at the level of the project extranet. Joel has told you about how extranets and other technologies are the lifeblood of the project; I want to get you thinking about how that may be true, but PEOPLE are the SOUL.

About John D. Macomber

First, let me tell you a little bit about my background. This will disclose my prejudices and help you dial in the context of my opinions.

At the core, I'm a construction person. My family has been in the construction business for over a century. My great-grandfather left the George A. Fuller Company in 1904 to build the first structural steel building in Boston. He built the Weld Boathouse at Harvard in 1907; one of the projects on my watch is the Taubman Center at Harvard, 85 years later in 1992. I bought the George B. H. Macomber Company from my father in 1990, and ran it as CEO for six years. I'm still the majority stockholder.

I'm also a real estate person, being a partner in the development and management of about 2 million square feet of commercial space in Massachusetts.

I've been in the construction equipment business, providing compressors and staging frames and trowel machines and generator sets on a rental basis – shared productivity tools for the whole team to use. We sold that business to a large consolidator, United Rentals.

I'm an academic as well. For more than a decade, I've taught a course in the graduate program at MIT entitled, "Strategic Management in the Design and Construction Value System." The point is to look at the whole system that delivers buildings, from mud to bricks to walls to rent to mortgages. We seek to understand the business motivation of all the parties, and to figure out how to take a whole system view to create value by working intelligently together. From this research platform, I assist several firms in their formulation of IT strategy in design and construction.

Through all of these experiences I became increasingly frustrated by the waste and foolishness in moving information around. Communication is flat out stupid in this industry, with everyone keeping things close to the vest and doing things over and over and over. The cool tools languished on the shelves because nobody was paid to think about the good of the whole system. The situation cried out for an independent third party to be the "project communication host." That third party can amortize the cost of research and development across many projects; and that third party can be an independent resource whose devotion is to the whole team, and to information flow, for the benefit of all parties.

In response to that need, in 1996 I founded Collaborative Structures. We are a leading communication resource in the AEC world, and I hope you will visit us at booth # 1669.

Also, in the event that some of these strategic frameworks are useful to you or your company, please pick up a copy of my remarks at our booth, or download them from our web site.

Vision

Let's think about the deep future of our industry. Based on what Joel has said and based on what you will see on the floor this week, it's easy to see several trends.

- 2D to 3D. It's technologically possible TODAY to represent the whole structure as a 3D solid with perfect coordination and rich, unambiguous detailing. It may not be PRACTICAL yet, but it will be, sooner than you think.
- Static to dynamic. That 3D model will be available in real time on line to anyone. And as you all know, if the Owner needs to change the building program, he will change the building program – but now, in real time.

- Hoarded to shared. There are too many time and competitive pressures to allow the continued hoarding of information. As your kids say when they justify copyright violations on Napster and MP3, information wants to be free.
- From individual benefit to collective benefit. Even absent technology, the rapid rise of design build contracts and project wrap up insurance headlines the potential economic benefit of working as a system, not just as individuals.

Today, we base everything on static designs and static contracts, based on 2D plans, sections, elevations, schedules, and text –and it's already hard to manage changes. This will be orders of magnitude more complex on a dynamic model shared in real time. If we don't figure out the **business and people relationships**, it won't happen.

In the intermediate term

That's fine for the deep vision. Let's pull back a little and think about ways in which the business side of our industry will move towards this future. This depends on the four themes I introduced at the beginning:

- Information transparency
- Personal effectiveness
- Economic risk
- Personal comfort.

Transparency of information means that information can be seen by everyone, and they can see it in a hurry. This will lead to new economic structures as organizations grapple with one huge paradox: how to reconcile the compelling benefits of information sharing with the compelling risks of information exposure.

Assume for the moment that the benefits of sharing all of the information – design, business, finance – are so powerful that they result in far less expensive delivery of projects. How will we actually organize ourselves to handle the paradox?

This is about the second theme, **economic risk**. Right now firms forego efficiencies of all sorts in an effort to isolate risk. How will risk structures evolve?

One possibility is that the benefits of sharing all the information will be truly compelling, but we can't all get out of our own way to figure out the business relationships. This would lead to a "verticalization" of the industry where firms do more and more things under one legal umbrella. This is the exact opposite of how our industry is structured now, but it might happen. If there is no way to rework economic risk, this is the only way. This would make design build grow even faster – and design build firms would wind up with mechanical, electrical, and structural under one roof, too.

The other route is that we do indeed figure out effective ways to tie all of the parties together. We also figure out how to make it worth their while to share their information, with some sort of aligned incentives. This is my bet, this is what I teach at MIT, and this is what Collaborative Structures is here to do: help teams work together better.

Let's move on from information transparency and economic risk to overlay the theme of personal effectiveness.

Personal Effectiveness will mean that a good architect, or project manager, or mortage broker, can handle more work. This is because technology tools take the b.s. out of routine communication, allowing people to focus on judgement and problem solving. At Collaborative Structures we are seeing that a project manager who ran three jobs the old way can run five the new way. *But there is no proportionate increase in demand for buildings!!* So what does this mean? It means that capable people, rendered more effective with proper use of technologies, and identified by the transparency of information, will get the work. And they will do more of it. So one of the other people sitting next to you won't be in this industry five years from now.

Does this make you uncomfortable? Probably. And this in before even factoring in the fourth theme, personal comfort.

Not everybody is as much of a technology fan as are the attendees of AEC/Systems. But **personal comfort** with what's on the desktop will be the deciding factor. Our experience at Collaborative Structures shows that implementation is not really about how to use the technology – the technology is easy. Really making a difference is much more about being comfortable that the technology will actually be good for you and for your career and for your company! Later on I'll be pleased to share some best practices learning about how to help the people get comfortable.

Keeping a place at the table

In the context of information transparency, personal effectiveness, economic risk, and personal comfort, your firm still needs to finance, design, and build.

Advice, leadership, and risk

Moving closer to the present, how do you and your firm keep a place at the table? By thinking hard about what you get paid for: providing **advice** and knowledge; providing **leadership** and management; and accepting **risk**.

Whether you are a structural engineer or a masonry contractor, you are compensated in some combination for your knowledge – providing advice; for your leadership – causing things to get done; and for accepting risk – signing a contract. The game in the future: how can technology help you do better at selling your knowledge, stretching your leadership, and taking on just the risks you are getting paid to take on?

Let's think about how the technologies on the floor this week will help you do these better. I'd like to introduce a second analytical framework: that there are two kinds of dot.coms. In a striking parallel to the construction world, there are **dot.coms for a fee**, and **dot.coms at risk**. Let's think about both of them.

First, consider companies which are **"dot.coms for a fee."** They provide a service. They don't draw floor plans or install carpet or post bonds. As you will see this week, there are many excellent applications from a technology point of view, and many exciting business models from an investor point of view. But from the point of view of a real estate developer, an architect, or a general contractor, I'm not too concerned with these firms and their business strategy – I just want to know how their offering can help me leverage my ability to provide **advice**, provide **leadership**, and manage **risk**.

There are four basic ways in which dot.coms for a fee can help you. These are applications, content, exchanges, and communications.

- Applications. Better ways to do accounting or drawing or scheduling. For example, you can rent an accounting solution that is hosted elsewhere and accessed via the Web. This keeps you from having to own and support a minicomputer and keep upgrading software from CD-ROMs. What's in it for you? Lower overhead, accounting isn't a core skill.
- Content. Better ways to look at catalogs of doorknobs, see what schools are being bid in South Dakota next week, catch up on the newest advances in cold weather caulking and sealants. What's in it for you? Faster access to more information.
- Exchanges. Here is where you can buy and sell things. These are great in the world of 1:1 deals and can help you by driving margins down and matching up more sellers with more buyers. What's in it for you? Lower cost of goods, lower overhead in executing buying. There are of course three major issues with respect to exchanges that we are all working on together from the provider side.
    - The first is around professional services. At all levels, real estate, design, and construction are professional service businesses. Whether you are buying structural engineering, mortgage brokering, or carpentry, it's not the nails and boards that are hard; it's finding someone who knows how to pound those nails in the right place, and who can do it fast.
    - The second is around who buys. Owners buy some things, general contractors don't buy much, architects and engineers don't actually buy anything for the project, even specialty subcontractors have multiple tiers of sub-subs. I once figured in my MIT class that on a $100 million project, by the time you get past the labor, the services, and the markups, about $14 million of stuff is actually purchased by someone.
    - The third is around specialization. I believe that there will not be one huge market maker. Instead, there will be a variety of specialists, as there are in stock or commodity or resume exchanges in other industries today. It's very different to buy plywood, or structural engineering services, or engineered curtainwall. Some sellers are fragmented; others like elevators can be expected to drive the exchange from the sell side, not the buy side. You will hear much more this week about this. The evaluative lens for me, as always, is: How does it help your firm provide advice, offer leadership, or control risk?
- Communication. Granted, I'm an interested party since this is where Collaborative Structures specializes – in fact that's all the firm does. But strategically, I see communication as the glue that ties together all the participants on the delivery side with all the participants on the execution side – millions of dollars, tens of thousands of documents, hundreds of people, scores of firms. There is a hierarchy of potential value added.
    - Communication and messaging platforms will step up from dumb stupid document posting,
    - To where they use XML to reach right into existing databases and your current accounting system, thereby reducing double entry.
    - And finally, new optimizing algorithms that think about the whole project team will be made accessible to the fragmented players in our industry.

- When the people are ready to share this deeply, these will be the communication solutions that finally deliver the promise of being the glue on which teams can truly act like members of a system, not like a bunch of crazed adversaries.
- The communication provider can partner with many solutions in the application, content, and exchange space to offer its teams access to the best in class of all breeds – just as the industry is structured today.

These **Dot.coms for a fee** can help you provide better **advice**, help you leverage your **leadership skills and time**, and help you **control risk**. They are good tools.

Dot.coms at risk.

Now, let's talk about **"dot.coms at risk."** What are dot.coms at risk? These are actual architecture, construction, and real estate firms, as they become more comfortable with technology. Many business thinkers offer the premise that in few years we won't talk about Internet firms; everyone will be one. We don't talk about who is a telephone using business or airplane using business any more, either.

Think about it: architects are deeply in the content business. You have proprietary skills and knowledge; your deliverable is a design and associated services. Contractors are the ultimate information exchange already; where is it, what will it cost, who owns it, when will it be done – times ten thousand. Both of you take risks on your balance sheet, your professional reputations, and your payroll. Both of you provide leadership.

Why haven't we heard about dot.coms at risk? Because so far the fundable economic models have focused on applications, content, exchanges, and communication. But basic economics tell us that there will only be a few services businesses that survive and get scale – in the way that Autodesk and Bentley, Primavera and JD Edwards did in the last generation. There are high barriers to entry and large economies of scale. One size can fit all. But in at-risk design and construction, there are low barriers to entry and, historically, few economies of scale; and every project is unique.

One of the promises of technology is that it further reduces barriers to entry. Little firms have access to resources that only big firms had before – leading to further fragmentation, even as fewer players are needed. Information transparency will mean that customers know who is capable; personal effectiveness will let one excellent project leader stretch to more jobs.

So even though there will be consolidation, the world will still need many, many at risk entrepreneurs to provide project based **advice, leadership, and risk services.**

Strategy

How will the big architecture and construction players, with lots of assets, existing relationships, and knowledge, become part of the information economy? How will the fleet little firms?

Here's how this will play out**. Information transparency** will mean that quality is recognized more easily, and delivered with less "noise" around the communication piece. The work flows to the capable. **Personal effectiveness** will mean that capable people in capable firms will do more work, and get more work. **The acceptance of more risk**, instead of running away from risk, will drive more volume. Finally, the best risk taking firms will reward their people in a way that enhances their **personal comfort**, and does not detracts from it. As you can see, my bet is that a new species of AEC firm will evolve, a dot.com at risk, one that is paid well to provide **advice and knowledge**, to **lead**, and to **accept risk**.

The dot.coms for a fee – dot.coms not at risk - will evolve to help the at-risk firms to focus on their core skills. They will also grow to serve the core structure of the design and construction industry business value system: that the supply chain in this industry is about tightly coordinated professional services at all levels, from banker to tile setter. I believe that Collaborative Structures will be one of the dot.com service firms helpers that leads these supply chain teams into the new world of information transparency and rapid transactions.

Some of these dynamics seem contradictory. Are there economies of scale, or are there not? In many industries, this has led to a bipolar arrangement – there are huge firms with scale, and boutique firms with a personal touch. Consider retail – you can go to WalMart or your local tailor, but there's not much in between. Same thing in banking, insurance, financial services – huge firms and boutiques, few firms in between. Some in between firms have been in the news lately: Raytheon E&C, Stone & Webster were too small to compete with Bechtel and Fluor, and too big to compete with the regional builders.

As a member of the large population of developers, architects, engineers, contractors, and subcontractors who want to thrive, you should care a lot about what it means to be a dot.com at risk – because you are one. The dot.coms for a fee exist to serve you.

What can you do in your firm?

What can you do in your firm? On a tactical level, you can start your information strategy today. The first lesson I teach in my classes at MIT (after we map the design and construction value system) is one that I learned from the strategy guru Michael Porter. That is: **there are only two ways in which information technology gives you competitive advantage**:

1. Lower your costs
2. Increase performance for your customer (meaning lower their costs or increase the value they get).

Sometimes value is measured in non-economic ways – like increasing control, or reducing time, or providing a good buying and service experience. Usually, even those measures can be quantified.

That's it. Firms spend lots and lots of money on technologies that "get them ahead" or which are neat and wonderful or which are hoped to differentiate them from the pack. Maybe they do differentiate them…*but customers will not pay for differentiation they do not value.* Only invest in information technology if it will lower your cost or increase value for your customer.

The second lesson is to **focus on your core skills and competencies**. Leverage your hiring, your program planning methodology, your bid day routine. Outsource the rest of it to the many firms who specialize in doing bits of it better than you can – whether it's a payroll service, a reprographics house, a project extranet provider, or a drywall subcontractor. There is no need at all for a 100 person firm to have three people keeping the LAN up and the desktops running, and for six more to be wrestling with 401(k) administration and keeping an old IBM minicomputer up running a general ledger that can only be queried by sacrificing little slips of paper to the gods. That doesn't help you provide advice, lead team, or control risk.

How do you tie in these lessons, regarding both competitive advantage and core skills? As you might guess, by driving the process as **information transparency** and **personal effectiveness** combine with **personal comfort** around resources and responsibilities, so that the firm takes on and manages and gets paid for the **economic risks** that it chooses.

What does this mean for you this week as you walk the floor? For one thing, consider how any of these vendors is going to help you to provide **advice** better, **lead** better, and **accept risk** better. Don't be confused by the noise on the floor generated around business and financial strategy for **dot.coms for a fee**. You only tangentially care about that. The real strategic issues you face in your AEC firm in becoming a surviving and thriving **dot.com at risk**.

At the firm level

Let's move to the firm level. I told you that people are the soul of the project; why is this? Let's think how that plays out at the strategic level in your company.

First, we've supposed that information transparency and personal effectiveness will lead to an industry with fewer financially successful firms. Second, we've supposed that when the dust settles technology will not be a differentiator at all, but an equalizer. After all, every firm is free to buy the tools and services you see in the exhibit hall. But it's one thing to buy them, another to use them well; just because you own Microsoft Word, that doesn't make you Faulkner.

In service business in the AEC value system, intangible assets matter. Your firm's knowledge, your culture, your selection of people, training of people, and motivation of people will be the differentiator over time. Can you capture the wisdom of the firm? Can you bottle leadership skills? Can you work the right balance between the initiative of a federation of entrepreneurs, and the lack of effectiveness and control of a band of cowboys? These questions will drive large firms and small in the near future.

Recap

I've tried to share my vision for the deep future in our industry, one of 3D solid models tied to databases and available to everyone in real time over the Internet and contracted on a multiparty agreement. I've also tried to bring us back a little closer, to think about industry structure for the dot.coms for a fee – and for the rest of you who will be dot.coms at risk. I've tried to talk a little about the basics of information technology strategy.

Best practices today

For some of you literal project manager types, this is all to abstract. Let me try to leave you will news you can use, with takeaway value you can use today.

Throughout the first portion of this presentation, you have witnessed the themes of **information transparency** and **personal comfort**. As you know, I believe deeply that people are the key to using any of these technologies; cool stuff on the desktop will just languish on the desktop. Here are some lessons learned at Collaborative Structures. These are drawn from four year's experience in the communication business. They are drawn from thousands of users, hundreds of thousands of transactions, and thousands of person-days of individual service to project teams. This is a set of **best practice rules for nurturing people, the soul of the project.**

Defeat the common enemies

From the very start, we find it very useful to help people back up and remember that the whole team has two common enemies: TIME and CONFUSION. Nobody benefits from wasting time or propagating confusion (or if they do business that way, you don't want them anyway). Many people are thinking of moving information off their personal desktop, without thinking of the

whole system; we generally find that helping them see how THEY are helped too by saving time and reducing confusion, is a terrific step toward achieving personal comfort with the solutions.

Personal comfort comes from aligning objectives.
On one level, we have found that personal comfort for users comes from addressing the objectives of the whole team. We have found that in selecting tools of any type, communication or not, that asking these six questions really helps find a comfortable fit that will be used.

1. What are you trying to do?
2. Who is on the team?
3. What are their skills and interests?
4. What resources are available?
5. What matters?
6. How will you measure return on this investment?

For example, it's on thing to have a bunch of Windows-only AutoCad fiends in San Francisco who need to send 500 DWGs to Bolivia complete with pen weights, layers, and x-refs. The people on the other end also are Windows only, and everyone has T-3 and ambitious IT staffs. That will lead to one solution. It's quite another to have a national owner doing seven facilities in six states with five contractors, four architects, three user groups, and two operating systems. In this case, where the coherence of the whole program matters almost as much as not forcing an intrusive technology on any of the players, quite a different solution is appropriate. While both of these firms may be out on the floor, you sure want to figure out what you are looking for so you can ask them intelligently.

Personal comfort: designing the tools
Third, we have a observed a number of issues around practical technology for information transparency and people comfort. These are:

1. Make it simple. No user manual.
2. Make it everywhere: really easy to access and use.
3. Preserve existing applications. Firms won't junk their control package for just one project.
4. Have a professional host. An independent third party whose role is to represent the information and the whole project, nothing more, is worth it.
5. Learn from those who have been down the learning curve. You don't need to repeat mistakes. Many technology firms also provide extensive people services so that your project managers don't have to convince 100 people to do something; it can be outsourced to specialists. It's a false economy to go cheap and then make your job captain into the support desk for everyone's web browser and home dial-up line.

Economic Risk
Economic Risk has been an ongoing thread of this discussion. A few weeks ago at the Forbes conference in San Francisco, I sat down to dinner with an attorney who had been representing contractors in claims for 35 years. I'm always jealous of these individuals who got their law degree in the wholesale one-tuition plan; as a contractor I paid for my law degree a la carte at $250 per hour for each new course.

He asked me, "How can I advise my client the canal builder that his risk position isn't worsened by sharing information on the Internet?" Tomorrow I am speaking to a group of lawyers in Atlantic City (of all places) on just this topic. That paper is on our web site at costructures.com, if you are a risk management junkie. Here are the highlights of how you can pick a system that contains risk:

1. Permanent Record. Make sure there is a permanent record of everything; that NOTHING can be edited, removed, reorganized, or taken away once it's posted. I've been through too many claims to allow revisionist history. People need to be confident that information they relied on will still be there.
2. No administrative changes, Pick a system that forbids any administrator to change roles, workflow, security, or access after the fact. One of the interested parties can't have the keys to lock another party out.
3. Share what's comfortable. On Collaborative Structures projects, this has come to mean all the information that you have to share anyway: letters, schedules, RFIs, meeting minutes; whatever you would fax or mail anyway. Even the most adversarial projects have to have a minimum communication set. There is no need to concern people that you are going to reach deeper into their affairs than they would like. Similarly, we encourage people to use common sense in keeping some things offline. If you wouldn't write it down and stick it in a paper file, by all means don't post it in some electronic device!
4. Get wet signatures and keep a paper copy. Digital signatures require training and the law is new. Teams are still ahead of the game if they get signatures and keep one set per firm of the key business documents; it's better than coping 50 500-page contracts and sending them all over creation. We had one architectural firm in San Francisco whose office policy was to keep a paper copy of everything. They pulled a paper copy of every entry in the database, every day; 6000 documents. But they had ONE copy in the firm, not a different almost complete set in the offices of the partners, the job captain, the designer, the project manager, and the person in the field. (On that project the Owner, by contrast, scanned in every piece of paper they could get their hands on and threw them all away, and wound up with a complete digital record of the same project. Both were happy and both were more effective than they had been before).

Help the champion lead

Finally, I can't understate the role of the project champion. Computers don't do judgement; people do. Computers don't have good or bad intent; people do. Computers don't work hard; people do. The project champion practices a time honored trait: good old-fashioned leadership. Causing people to work together.

Often the on the ground champion is a junior person on the project, maybe the one who has to move the most paper…I mean the most bits. Often these are architects or engineers with technical training. We have found that some of the most highly leveraged training we do is around plain old leadership skills – consistency, fairness, clarity, and follow-through. In fact, we have engaged a nationally known resource on partnering, Bill Ronco, to conduct a workshop here on Wednesday about partnering using the Internet. We feel it's that important.

Best practice checkpoints

With respect to helping the champion to lead, and helping the other members to follow, we have set up four checkpoints for project champions to visit regularly. All four of these, when each

one is touched, build the kind of positive feedback loop that grows in strength and inclusiveness. Our application is designed to promote these elements:

1. Encouragement. Notice when people do something well (even if it's just clearing their first RFI.
2. Measurement. How fast is turnaround time? Who is contributing to the database, and who is just reading? What kinds of documents are being used the most?
3. Accountability. Do people do what they say they will do? Can you underscore that in the application?
4. Enforcement. What does the champion do when people deviate? One of the great skills of effective leaders is to combine encouragement with enforcement. Without exception, the leaders on the projects we see are learning these skills and applying them well – not only in the virtual world, but more importantly, in the real world too.

Conclusion

To wrap up, I have tried to give you some insights in to how people are the soul of a project. I have tried to provide takeaway learning around best practices in the trenches (well, actually at the desks and tables…). I have tried to provide a framework for industry structure in the years ahead. And, I have tried to stretch you with a vision for the deep future. I have tried to do all this as a contractor, as an academic, and as an Internet service provider. I hope that you have been thinking.

In the end, here are the issues:

- The technology is way ahead of our ability to digest it.
- The most powerful new solutions shine when there is a systems approach, not an individual firm approach.
- The tools are no good if the businesses and the people won't use them.
- Usage is not about technology; it's about people and contracts and relationships.
- Judgement, trust, and talent count.
- Technology is not the differentiator – it's the equalizer.

We have talked about four themes:

- **Transparency of information**…means work will flow to the most capable.
- **Effectiveness of the individual**…means the most capable people will win a larger share of the available work
- **Economic risk**…is good and will be accepted and managed by someone (you or your replacement firm…)
- **Personal comfort**…means actual humans won't use this stuff until they can see WIFME – what's in it for me.

Second, I've tried to leave you with the idea that the vendors out there, including myself, are **dot.coms for a fee**. You in the audience, the owners and architects and contractors and subs

and manufacturers, are the new **dot.coms at risk.** There is more opportunity overall for a large industry of dot.coms at risk that there is for a few dot.coms for a fee.

Finally, to ground all of your discussions, remember that everyone in the value chain buys an element of professional services. Every service has components **of advice, leadership, and risk**.

How does an AEC firm thrive in the future? By using the available tools to do a better job of providing advice and knowledge, of teaching leadership and management, and controlling risk.

How do you act on this today? With the realization that technology is the equalizer. Your people are the differentiator. When the dust settles, this industry will be even more about people than it was when we started.

Extranets may be the lifeblood of the project, but people are the soul. Nurture them well and handle them with care.